

ABSTRACT

Dynamic allocation of communication channels among communication units (CU) in a communications system. Dynamic channel allocation employs a reservation set for reserving channels and an allocation set corresponding to the reservation set for receiving allocated channels. The reservation set and the allocation set are changed dynamically as a function of network parameters to control the dynamic channel operation. Reservation set information is broadcast downlink to multiple users to reserve an allocation set of uplink radio resources for specific ones of the users. The system uses a modification of the packet data channel (PDCH) of a GPRS/EGPRS or EDGE system which employs an Uplink Status Flag (USF) on each PDCH downlink radio block. The downlink reservation set information is commonly received by all users in the group of users. Allocation delay, bandwidth efficiency and other system parameters are optimized.